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Application No.: 09/556,392

IV. AMENDMENTS TO THE CLAIMS

1. (CURRENTLY AMENDED) A sheet-material foreign-matter detecting method for detecting whether or not a foreign matter light-reflecting surface of foreign matter is different in reflectance from a light-reflecting surface of a sheet material having light reflectivity-is-, the foreign matter being attached to-a the light-reflecting surface of the sheet material while moving the sheet material in a predetermined direction, comprising the steps of:

applying light to a predetermined position on the light-reflecting surface of a moving route of the sheet material from a position having a predetermined angle from the <u>light-reflecting</u> surface of the sheet material;

picking up <u>as a virtual image of a light source</u> a light-source image reflected from the <u>light-reflecting</u> surface of the sheet material by image-pickup means; and

judging a difference between brightnesses of the light-source reflected image due to a difference between reflectances of the <u>light-reflecting surface of the</u> sheet material and the foreign matter <u>light-reflecting surface</u>, wherein a light-source image reflected at a position shifted by a predetermined distance along the <u>light-reflecting</u> surface of the sheet material from a reflection position of the light extending along an optical axis of the light source is picked up.

2. (CANCELED).

3. (CURRENTLY AMENDED) A sheet-material foreign-matter detecting apparatus for detecting whether <u>a foreign matter light-reflecting surface of foreign matter is different in reflectance from a light-reflecting surface of a sheet material having light reflectivity-is-, the foreign matter being attached to the <u>a light-reflecting</u> surface of the sheet material while moving the sheet material in a predetermined direction, comprising:</u>

a light source for applying light to a predetermined position on the lightreflecting surface of a moving route of the sheet material from a position having a predetermined angle from the <u>light-reflecting</u> surface of the sheet material; an image pickup means picking up <u>as a virtual image of a light source</u> a light-source image reflected from the <u>light-reflecting</u> surface of the sheet material; and

a judging means for judging a difference between brightnesses of a light-source reflected image due to a difference between reflectances of the <u>light-reflecting surface</u> of the sheet material and the foreign matter <u>light-reflecting surface</u>, wherein a pickup position of a light-source reflected image on the <u>light-reflecting surface</u> of the sheet material is shifted by a predetermined distance along the <u>light-reflecting</u> surface of the sheet material from a reflection position of the light extending along the optical axis of the light source.

4. (CANCELED).

5. (PREVIOUSLY PRESENTED) A sheet-material foreign-matter detecting apparatus for detecting whether foreign matter different in reflectance from a sheet material having light reflectivity is attached to the surface of the sheet material while moving the sheet material in a predetermined direction, comprising:

a light source for applying light to a predetermined position of a moving route of the sheet material from a position having a predetermined angle from the surface of the sheet material;

an image pickup means picking up a light-source image reflected from the surface of the sheet material; and

a judging means for judging a difference between brightnesses of a light-source reflected image due to a difference between reflectances of the sheet material and the foreign matter, wherein said judging means is configured by image processing means for image-processing the data picked up by image pickup means and detecting whether or not the brightness of a predetermined area of a processed image including a light-source reflected image becomes a predetermined value or less.

6. (PREVIOUSLY PRESENTED) A sheet-material foreign-matter detecting apparatus for detecting whether foreign matter different in reflectance from

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a sheet material having light reflectivity is attached to the surface of the sheet material while moving the sheet material in a predetermined direction, comprising:

a light source for applying light to a predetermined position of a moving route of the sheet material from a position having a predetermined angle from the surface of the sheet material;

an image pickup means picking up a light-source image reflected from the surface of the sheet material; and

a judging means for judging a difference between brightnesses of a light-source reflected image due to a difference between reflectances of the sheet material and the foreign matter, wherein a pickup position of a light-source reflected image on the sheet material is shifted by a predetermined distance along the surface of the sheet material from a reflection position of the light extending along the optical axis of the light source and said judging means is configured by image processing means for image-processing the data picked up by image pickup means and detecting whether or not the brightness of a predetermined area of a processed image including a light-source reflected image becomes a predetermined value or less.

7. (CANCELED).